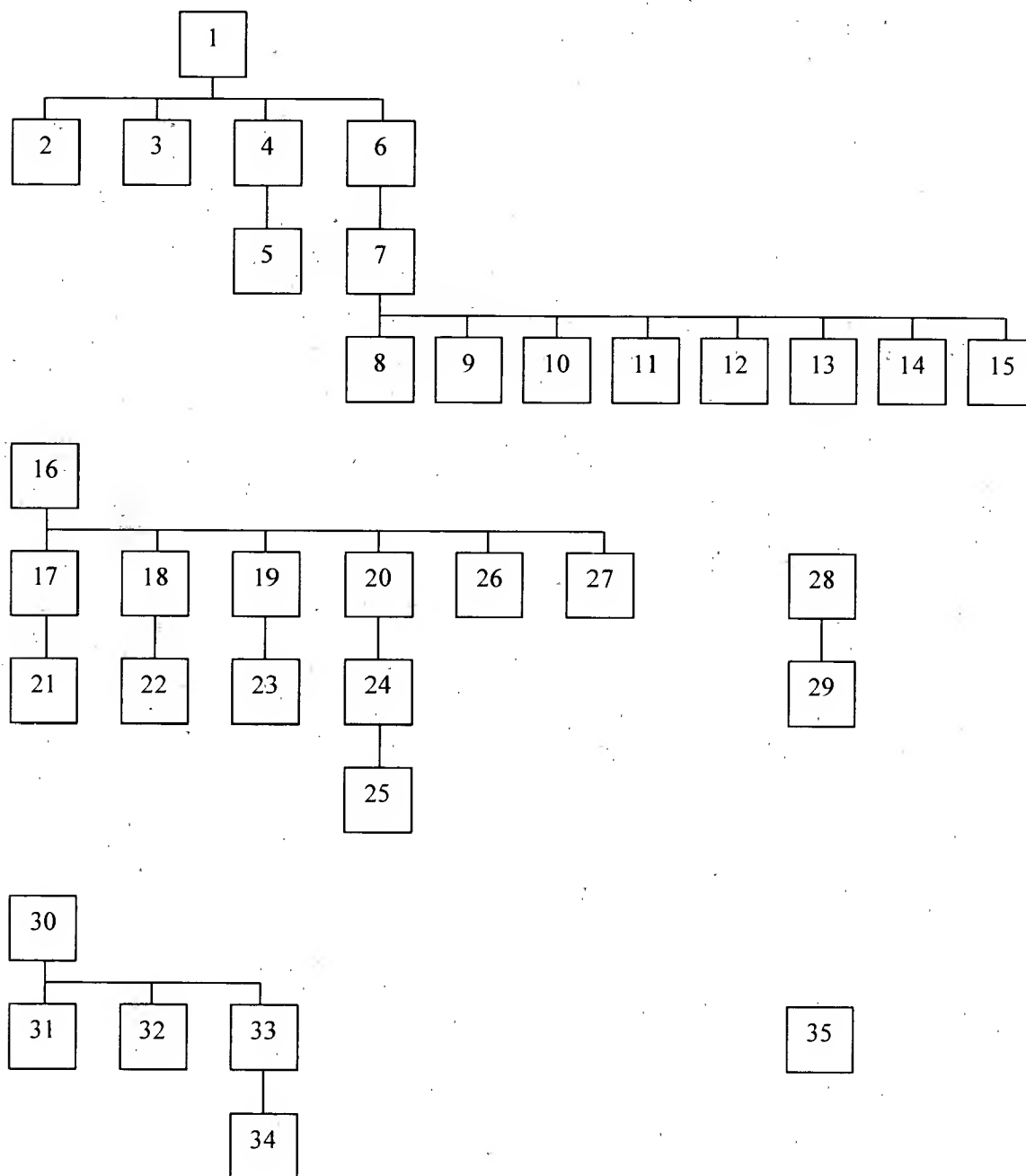


REMARKS

Original claims 1-35 have been examined. Below is a claim diagram illustrating the relationship among the claims remaining after entry of this amendment.



Applicants acknowledge and appreciate the Examiner's indication that claims 2, 5, 7-27, 31, and 35 define allowable subject matter. However, since claim 35 has also been indicated as a rejected claim on page 3 of the Office action (Paper No. 2), Applicants presume the indication of claim 35 as allowable subject matter to be an error. The remaining claims 1, 3, 4, 6, 28, 29, 30, and 32-35 are rejected as being anticipated by U.S. Patent No. 5,515,493 to Boston (herein "Boston").

Section 112 rejection, Second Paragraph—Claims 1-15, 20, 23, and 35

Claims 1-15, 20, 23, and 35 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants assume that the Section 112 rejection of dependent claims 2-15 is based on the rejection relating to independent claim 1. In response, Applicants amend claims 1, 20, 23, and 35 to overcome the minor informalities indicated by the Office action. Additionally, Applicants amend claims 2, 21, and 28 to correct other minor informalities found by Applicants. Accordingly, for all these reasons, Applicants request that the Section 112, second paragraph, rejection, of claims 1-15, 20, 23, and 35 be withdrawn.

Section 102 rejection—Claims 1, 3, 4, 6, 28, 29, 30, and 32-35

The Office action asserts that the "signaling" a hung state recited in claim 1 is disclosed in Boston, because "signaling" such a state is inherent in halted applications. To the contrary, a halted application in the debugger environment of Boston is not the same as a hung application. Because the debugger 28 of Boston deliberately steps through the execution of the application (i.e., debuggee window), the application cannot be in a hung state. A hung state generally refers to an unintended state of the application in which the application does not function properly. In other words, the application is unintentionally stopped. In contrast, the debugger in Boston controls the execution state of the application being debugged, and thus the application is intentionally halted at each of several states. Thus, Boston does not disclose the step of "signaling a *hung state* for the application" as recited in independent claims 1 and 35.

The Office action also asserts that detecting activity in an event queue as recited in claim 1 is disclosed in column 4, lines 50 through 52 of Boston. However, the debugger in Boston actively controls the incremental execution of the application. Therefore, the state of the halted application is not an unknown state that has to be "detected" in a debugger environment. Thus, Boston does not disclose "*detecting activity* in an event queue *of the application*" as recited in claims 1 and 35.

The Office action asserts that "replacing the ghost user interface ... in response to the detection of activity" in the event queue in claim 1 is disclosed in column 4, line 59 through 61 of Boston. Boston does not detect the responsiveness or non-responsiveness of the application by detecting activity in the application's event queue. Therefore, Boston cannot disclose the step of "*replacing the ghost user interface with the original user interface in response to the detection of activity*" as recited in claim 1 and also in claim 35.

For all these reasons, Boston does not disclose managing a user interface for an application by detecting when an application becomes non-responsive and creating a ghost user interface until the application again begins to process inputs as recited in claims 1 and 35. Boston similarly does not disclose the "non-responsive-application detecting code" and the "high priority special entry" recited in claim 30. The rejection of independent claims 1, 30, and 35 should be withdrawn and favorably reconsidered.

The Office action also asserts that generating first and second flip window signals in claim 28 is disclosed in Boston at column 2, lines 23 through 30 and inherently disclosed in Boston at column 4, lines 59 through 61. To the contrary, no such signal is needed in Boston, because the debugger of Boston actively stops and starts the application. In Boston, the debugger first intercepts a window repaint message directed to the halted application and, in response to the message, repaints the window of the halted application with saved information of the halted application. As a result, the debugger controls the state of the application for the entire process, and no signal is needed to indicate a change in the status of the application. Moreover, since Boston does not disclose even one such signal as recited in the claim, Boston certainly cannot disclose two such signals for two separate windows and threads. Thus, Boston does not disclose

"generating first and second flip-window signals corresponding to first and second threads, respectively" as recited in amended claim 28.

The Office action also asserts that replacing the first window with a substitute window as recited in claim 28 is disclosed in column 2, lines 24 through 35 of Boston. However, claim 28 recites that the replacing step is in response to a signal. Since a signal indicating the state of the application is not needed in Boston, the replacing step is not done in response to any signal being sent. Thus, Boston also does not disclose the steps of replacing steps in response to a signal recited in claim 28.

For all these reasons, Boston fails to disclose a method for substituting shadow user interfaces for original user interfaces that includes the generating step and the replacing steps as recited in claim 28. It is accordingly requested that the rejection of claim 28 be withdrawn and that claim 28 be favorably reconsidered. Moreover, to the extent that the rejection of claim 28 is maintained, Applicants request that the Office clarify (1) how "in response to the second flip-window signal, replacing a second window controlled by the second thread" is inherently disclosed in Boston, and (2) how the teachings of Boston relate to "generating first and second flip-window signals" as recited in the claim and as taught in Applicants' specification.

The Dependent Claims

Claims 2-15, 29, and 31-34 depend from claim 1, 28, and 30. The dependent claims are patentable for at least the same reasons as their respective base claims given the remarks and amendments above. Applicants reserve the right to present further arguments in the future with regard to these dependent claims in the event that the independent claims are deemed unpatentable. The rejection of claims 2-15, 29, and 31-34 should be withdrawn.

Allowable Subject Matter

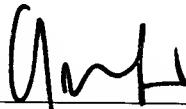
Independent claim 16 and its dependent claims 17-27 have been allowed. In this amendment, minor housekeeping amendments have been made to claims 16 and 18-26. Also, dependent claims 2, 5, 7-15, and 31 are allowable if rewritten in independent form

to include all of the limitations of the base claim and any intervening claims. In this amendment, however, Applicants have maintained these claims in their dependent form in favor of the clarifying amendments made herein to the independent claims, which are intended to re-state features Applicants believe were in the claims as originally presented. The objections to claims 2, 5, 7-15, and 31 should be withdrawn, and the claims allowed along with the allowance of their respective independent claims 1, 28, 30, and 35.

CONCLUSION

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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